SUPERVISION OF EMERGENCY MEDICAL SERVICES

EXECUTIVE DEVELOPMENT

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ABSTRACT

This applied research project analyzed the management structure for the supervision of Emergency Medical Services (EMS) in the Los Angeles Fire Department (LAFD). The problem was that the personnel responsible for the supervision of EMS in the LAFD were not properly positioned in either the organizational structure or the chain of command to be able to directly effect the behavior of the line personnel providing the services. The purpose of the research was to develop recommendations for an EMS management structure that would improve supervision of all line personnel providing EMS.

This research project employed the action research methodology to identify:

1. What rank and reporting structure would allow LAFD EMS District Officers to have direct supervisory authority over all line personnel providing EMS?
2. What was a reasonable span of control for LAFD EMS District Officers?
3. How did other like-sized and/or adjacent fire-based EMS providers, that provide ambulance transportation, supervise the line personnel providing EMS?
4. What factors prevented the LAFD from implementing an EMS management structure similar to the ones employed by other like-sized and/or adjacent fire-based EMS providers that provided ambulance transportation?

The principle procedures employed in this research project were: a review of the literature; survey; personal interviews; searches of related areas via the Internet; an analysis of federal, state, and local laws, regulations, policies, and standards; and an analysis of LAFD EMS performance data.

The major findings of this research were that the current LAFD management structure does not adequately support EMS supervision. The primary reasons for this lack of support

included: an inadequate number of EMS Districts; an excessive span of control for the current EMS District Officers; an inappropriate chain of command for the EMS District Officers; insufficient rank for the EMS District Officers; and inadequate representation of EMS issues at the general staff level due to the lack of an executive level EMS Officer.

The recommendations resulting from this research were that the LAFD should:

1. Increase the number of EMS Districts to match those of the current Emergency Services Bureau Battalions;
2. Realign the EMS District boundaries to match those of the current Emergency Services Bureau Battalions;
3. Elevate the EMS District Officers to the rank of Lieutenant Commander and assign them to the Bureau of Emergency Services as the Battalion EMS Officer reporting directly to the administrative Battalion Commander;
4. Establish an EMS Executive Officer assigned to the Bureau of Emergency Services at the level of Assistant Chief to function as the Department's Chief Paramedic and EMS Coordinator; and
5. Seek funding from the Mayor and City Council to implement the proposed recommendations.

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INTRODUCTION

The Los Angeles Fire Department uses dedicated EMS District Officers to provide on-scene medical supervision, evaluate the performance of Department members engaged in the delivery of EMS, and deliver EMS related training to Department members.

The problem is that EMS District Officers are not properly positioned in either the organizational structure or the chain of command to be able to directly effect the behavior of the line personnel providing the services. For the nearly 20 years that the EMS District Officers have been on-line, their ability to accomplish their assigned duties has been hampered by their rank and reporting structure within the Department. The purpose of the research is to develop recommendations for an EMS management structure that will improve supervision of all line personnel providing EMS. The methodology used includes: a review of the literature; survey (Appendix A); personal interviews; searches of related areas via the Internet; an analysis of federal, state, and local laws, regulations, policies, and standards; and an analysis of LAFD EMS performance data.

The action research methodology was used to answer the following questions:

1. What rank and reporting structure will allow LAFD EMS District Officers to have direct supervisory authority over all line personnel providing EMS in Los Angeles?
2. What is a reasonable span of control for LAFD EMS District Officers?
3. How do other like-sized and/or adjacent fire-based EMS providers, that provide ambulance transportation, supervise the line personnel providing EMS?
4. What factors prevent the LAFD from implementing an EMS management structure similar to the ones employed by other like-sized and/or adjacent fire-based EMS providers that provided ambulance transportation?

BACKGROUND AND SIGNIFICANCE

"The City of Los Angeles has been providing public sector emergency medical ambulance service since the early 1900's. The service originated as a program provided by the Los Angeles Police Department. In the mid 1930's, the service was transferred to the City's Receiving Hospital Department where it continued as the Police Ambulance Service, serving the metropolitan area of Los Angeles until July 1, 1970. Private ambulance companies, under City contract, provided emergency ambulance service in the San Fernando Valley until 1957, when the Fire Department introduced its rescue ambulance service. On July 1, 1970, the Receiving Hospital Department was abolished, and the emergency ambulance service was transferred to the Fire Department" (D.O. Manning, personal communication, December 1, 1983).

The Fire Department's rescue ambulances were originally staffed by "first-aid trained" firefighters and supervision was provided by fire suppression officers with the same level of training as the firefighters staffing the ambulances. The take over of the emergency ambulance service from the Receiving Hospital Department in 1970, paved the way for the replacement of firefighters assigned to rescue ambulance duty with single-function career EMS personnel. Although these career EMS personnel worked for the Fire Department and wore uniforms, they were technically civilians with different benefits and retirement plans than the sworn firefighters.

"The decade of the 1970's was an extremely dynamic period in the history of emergency medical services (EMS). In 1970, Cardiopulmonary Resuscitation (CPR) was being introduced as an adjunct to Advanced First-Aid, Emergency Medical Technician-1 (EMT-1) training programs were being developed, and a pilot program to train firefighters as paramedics was being tested in Los Angeles County" (D.O. Manning, personal communication, December 1, 1983).

In 1974, the City Council issued a mandate that the Fire Department convert all of its standard rescue ambulances to Advanced Life Support (ALS) Mobil Intensive Care Units (MICU). This required additional training and certification for all ambulance personnel through the Los Angeles County Paramedic Training Institute. This training and certification led to new rank and status for ambulance personnel as "Paramedics" (D.O. Manning, personal communication, December 1, 1983).

In January 1978, the Department placed six "backup" ambulances in service in various areas of the City. These backup or "200 series" ambulances were staffed with EMT-1 qualified firefighters who responded to either EMS or fire incidents as the need arose.

In 1979, the Department embarked upon a trial program utilizing dual-function firefighter/paramedics to staff paramedic engine companies. The objective was to provide a more cost-effective ALS service to first-in districts that did not have a rescue ambulance assigned.

"In July of 1980, the Department established the position of Chief Paramedic, which centered the responsibility for the management and administration of all EMS related matters with one individual under the Bureau of Fire Suppression and Rescue (BFS&R). Shortly thereafter, the Department implemented 24-hour EMS supervision by promoting nine Senior Paramedics and assigning them to the three BFS&R Division offices. These Senior Paramedics reported directly to the platoon duty Division Commanders (Assistant Chief). They provided staff support, participated in rescue ambulance ride-a-longs, and managed daily rescue ambulance staffing. However, there was no line authority associated with the Division Senior Paramedic position" (D.O. Manning, personal communication, December 1, 1983).

In 1983, the Bureau of Emergency Medical Services (BEMS) was created in an effort to improve the delivery of pre-hospital care services and provide single function paramedics with

promotional opportunities. The Bureau was charged with supervising single function EMS personnel. However, as these single function EMS personnel were assigned to fire stations, the supervision was a shared responsibility of the EMS Supervisor (formerly Senior Paramedic) and the BFS&R Station Commander (Captain). This arrangement proved to be an administrative disaster as field personnel frequently operated under conflicting policies, practices and procedures due to the fact that they were supervised by personnel from two different operational bureaus. Additionally, the administrative workload (staffing, timekeeping, vacation scheduling, and other non-medical duties) limited the amount of time that EMS Supervisors were available for training, supervising, and evaluating single function EMS members. The addition of these administrative duties created a redundant hierarchy between EMS Supervisors and Station Commanders (W. N. Wells, personal communication, June 7, 1996).

In 1996, the Bureau of Emergency Medical Services (BEMS) and the Bureau of Fire Suppression and Rescue (BFS&R) were consolidated into the Bureau of Emergency Services (BES). The single function EMS personnel assigned to Rescue Ambulances came under the control of BES. The EMS Supervisors were given the rank of Captain but were relocated to the new Bureau of Human Resources (BHR) under the Quality Improvement Section (QIS). The BEMS Bureau Commander (Chief Paramedic) was reclassified as a Deputy Chief and assigned as the Bureau Commander in BHR and retained the duties and responsibilities of the Chief Paramedic. The Assistant Bureau Commander of BEMS (Captain II/Paramedic) was transferred to BES as the EMS Liaison Officer (W. R. Bamattre, personal communication, June 7, 1996). When the Deputy Chief assigned as the Chief Paramedic retired in 1998, the duties and responsibilities of the Chief Paramedic and Paramedic Coordinator were reassigned to the QIS Commander who was a Fire Battalion Chief licensed as a paramedic.

The current duties of the EMS District Captains have expanded well beyond their original charter responsibilities of providing on-scene medical supervision, delivering EMS training, and evaluating EMS skills. They are now responsible for: collecting, sorting, and evaluating numerous EMS related reports and forms; picking up and delivering medications and EMS equipment; providing medical liaison services for injured Department members; conducting primary training and continuing education for firefighter EMTs, paramedics, and chief officers; and conducting the initial interview with juvenile fire setters. In addition, they are frequently requested to consult with the Battalion Commanders on EMS service complaints, however they are prohibited from taking any administrative action because they are assigned to the Bureau of Human Resources and have no line authority over field providers.

Requiring the EMS Captains to evaluate, train, and supervise members not within their chain of command has been largely ineffective. The Quality Improvement Section (QIS) audits of "Non-Contact/Non-Transport" incidents for January, February, and March 1999 (Appendix B) reveal a significant percentage of documentation errors and outright violations of the Los Angeles County EMS Agency Base Hospital Contact and Transport policy (DHS, 1998, Reference #808), by both paramedics and EMTs. The majority of violations were attributable to improper documentation of patient assessments, vital signs, and refusals of transport.

QIS audits of Standing Field Treatment Protocol (SFTP) incidents for January, February, and March 1999 (Appendix C) have shown an unacceptably high rate of deviations from established treatment protocols. In a significant percentage of SFTP incidents the paramedics are failing to document the protocol used to treat the patient, administering medications not contained in the protocol, and/or not contacting the base hospital as required. Each of these instances constitutes operating outside of medical control (DHS, 1998, Health and Safety Code,

1798.200) and exposes the City, the Department, and the members to enormous liability. The potential liability that exists from failure to comply with established policies and procedures clearly speaks to the need for on-scene supervision.

LITERATURE REVIEW

The historical over view of EMS in the Los Angeles Fire Department was derived from a review of unpublished internal documents. The other literature reviewed for this research consisted of fire and EMS journals and books, general management and supervision texts, along with the standards and regulations published by federal, state, and local agencies.

What rank and reporting structure will allow LAFD EMS District Officers to have direct supervisory authority over the line personnel providing EMS in Los Angeles?

In the Fire Chief's handbook, Casey (1978, p.50) states that "The most significant part of structuring a fire department is setting out clearly and in substantial detail the duties of the various bureaus and divisions and prescribing the relationship between them." He goes on to describe how "Most fire departments employ a line organization through which authority and command flow and within which responsibility is distributed in a fairly uniform way" (Casey, 1978, p.50). The line organization in the LAFD is through the Bureau of Emergency Services. All field forces are under the command of a Deputy Chief with the lines of authority flowing down through an Assistant Chief (Division), Battalion Chief (Battalion), and Captain (Fire Station). Chief Engineer Donald O. Manning (personal communication, December 1, 1993), in a report to the Los Angeles Fire Commission, proposed "a total EMS management structure, that was the same as any of the other major functions of the Department."

Michos (1981, p.45) suggests that "The size of the department and its involvement in EMS will determine whether EMS will be the sole responsibility of a fire service officer. If not the sole responsibility, then EMS should be at least be identified as a primary work program of the individual to whom it is assigned so that the emergency medical services receives the necessary supervision." The LAFD began using dedicated EMS Officers with paramedic training and experience to supervise EMS in 1983. It adopted this management structure in an attempt to improve the quality of patient care and the level of out-of-station supervision (D.O. Manning, personal communication, December 1, 1983).

In a report to the Los Angeles Fire Commission, the United Paramedic of Los Angeles (personal communication, March 4, 1986) asserted that "The first level of medical control must be at the field level. It is the responsibility of the Fire Department to police the quality of medical care that is rendered in the field." One of the primary responsibilities of a fire service EMS Officer is evaluating the quality of EMS delivered by field personnel. Michos (1981, p.45) states that this consists of "… individual evaluations, evaluation of daily operations, and evaluation of system effectiveness." She is adamant that "The individuals performing the daily operational evaluation must be knowledgeable and experienced in emergency medical services to make valid performance evaluations" (Michos, 1981, p.46).

As with any first line supervisor "The purpose of critiquing an individual's performance should be to help improve performance capabilities, not to impose discipline" (Michos, 1981, p.45). However, for the quality improvement process to work effectively, the feedback must come from a supervisor within the member's direct chain of command. "The things that get rewarded, get done. The greatest obstacle to the success of today's organizations is the giant mismatch between the behavior we reward and the behavior we need" (LeBoeuf, 1985, p.9). In

EMS, as in any specialized field, it takes knowledge and experience to recognize the behavior that needs to be rewarded.

What is a reasonable span of control for LAFD EMS District Officers?

Some of the "Factors to be considered in assessing the span of control include: the amount of contact required between the subordinates and the manager; the level of subordinate education and training; and the manager's ability to communicate, coordinate needs, geography, and job complexity" (Altman, 1977, p.11).

In the fire service "Most organizations have found it necessary to have supervisors who control activities of small groups within the more general directions provided by higher authority" (Casey, 1978, p.57). "If the target of change is a work unit at the bottom of a large organization, the key players will be those middle or lower level managers who are in charge of that unit" (Kotter, 1996, p.46).

The fire service has generally adopted the Incident Command System (ICS) to ensure that the chain of command insures a proper flow of critical communications to the appropriate command team member during emergency operations (FEMA, 1995, p.1-3). Under this system the normal span of control is 3 to 7 with 5 being optimal (FEMA, 1995, p.3-3). The system has been shown to substantially improve organization, control, and direction while minimizing confusion and chaos (FEMA, 1995, p.1-3).

How do other like-sized and/or adjacent fire-based EMS providers that provide ambulance transportation supervise the line personnel providing EMS?

Field supervision in EMS is as variable and diverse as the agencies providing the services. In most agencies, "The enforcement of medical standards is generally delegated by the medical director of an emergency medical services system to supervising personnel within the

provider agency. This requires that the fire service-EMS Officer works closely with and be accountable, in part, to the medical director of the EMS system. The fire service EMS officer must be familiar with all aspects of fire service operations, the goals and objectives of the fire department organization, and the principles of EMS management." She further describes the responsibility of the fire service-EMS officer as being not only to develop a plan that will work for the fire service, but also to develop a plan that will coordinate with other emergency medical service plans involving the community. The examples cited include state and regional plans, health systems agency plans, and civil defense and hospital disaster plans (Michos, 1981, p.45).

Casey (1978, p.55) contends that "The central focus and most time consuming responsibility of management is the coordinating or relating better the parts and pieces of the organization established to do a job." In EMS, that translates to on-scene medical supervision to ensure that operational policies work for the benefit of the patient. "As higher public expectancy develops and population and community expansion takes place, fire departments are forced to grow, re-deploy and adjust to new demands" (Casey, 1978, p.41). "In a rapidly changing world, someone has to make the current system perform to the expectations or those in power will loose the support of important constituencies" (Kotter, 1996, p.168). In EMS that person is the field supervisor. "The goal of every EMS system should be to continuously evaluate itself and constantly strive for performance improvement" (Sachs, 1995, p.897).

What factors prevent the LAFD from implementing an EMS supervision model similar to the ones employed by other like-sized and/or adjacent fire-based EMS providers that provided ambulance transportation?

"The American fire service's role in EMS is continually expanding. As a result, many fire departments are expanding their services to meet the needs of the citizens, or customers, they

serve. Many Departments are even changing their names to 'Fire and EMS Department' or 'Emergency Services Department'; this is a sign of the future of the American Fire Service" (Sachs, 1995, p.887). The Los Angeles Fire Department is not likely to be one of those departments that adopt a new name. The Department has a proud fire service history and is steeped in over 100 years of firefighting tradition. Although EMS accounts for as much as 80% of all emergency activity, the members and officers of the Department have not fully embraced EMS as an essential core service.

Prehospital EMS is only part of the EMS system. In January 1993, the National Association of State EMS Directors (NASEMSD) and the National Association of EMS Physicians (NAEMSP) ratified a joint position statement which states, in part, that "When EMS, at any response stage is provided by an agency or institution that also provides non-EMS services, the role and responsibility of that agency or institution as a sub-component of the EMS system must not be jeopardized by its non-EMS role(s) and responsibilities. Quality patient care will depend upon total commitment to the development and operation of an integrated and comprehensive EMS system" (Sachs, 1995, p.893). Although the roles, responsibilities, and relationships have never been clearly identified, legally mandated, or formally approved by the various agencies directly involved with EMS, in California, the constituency groups responsible for the system are now coming together in a process called "Vision" in an attempt to build a new model for EMS through consensus (EMSA, 1999, p.51). The prevailing attitude in the LAFD is that "EMS is the tail wagging the dog" (R. T. Teachenor, personal communication, September 6, 1999). This attitude has kept the Department from participating as a full partner in the cooperative development of the State and local EMS systems.

PROCEDURES

Definition of Terms

Administrative Office: The Office of the Chief Engineer and General Manager.

Advanced Life Support (ALS): Procedures and techniques used by EMT-P personnel to stabilize critically sick and injured patients who exceed Basic Life Support procedures.

Assistant Chief: A uniformed Chief Officer subordinate in rank to a Deputy Chief. Normally commands a Division or is assigned as an Assistant Bureau Commander.

Basic Life Support (BLS): Basic noninvasive first-aid procedures used by EMT and First-Responder personnel to stabilize critically sick and injured patients

Battalion: A subdivision of the Department containing a number of companies.

Battalion Chief: A uniformed Chief Officer subordinate in rank to an Assistant Chief. Normally commands a Battalion or an administrative Section.

Battalion Commander: A Chief Officer in command of a Battalion.

Bureau: A major subdivision of the Department: Emergency Services, Fire Prevention and Public Safety, Human Resources, Support Services, and Administrative Services.

Bureau Commander: Uniformed Chief Officer or civilian administrator in charge of a Bureau.

Captain I: An Engine Company Officer. The Station Commander in single Engine Company fire station.

Captain II: A Task Force Commander or Truck Company Officer. The Station Commander in Task Force or Light Force fire station.

Commanding Officer: The Officer who is the member's immediate superior in the chain of command.

Company: Members under the command of a Company Commander, assigned to a station with apparatus.

Company Commander: Officer or member in command of a Company.

Deputy Chief: A uniformed Chief Officer subordinate in rank to the Fire Chief. Normally commands a Bureau.

Division: A major subdivision of the Department directly subordinate to a Bureau or the Administrative Office.

Division Commander: The Chief Officer in command of a Division.

Emergency Medical Services (EMS) System: A comprehensive, coordinated arrangement of health and safety resources that serves to provide timely and effective care to victims of sudden illness and injury.

Emergency Medical Technician I (EMT-I): An individual trained in Basic Life Support according to the standards prescribed by the local, regional, or state EMS agency.

Emergency Medical Technician Paramedic (EMT-P): An EMT-I who has received additional training in Advanced Life Support above that of an EMT-Basic as allowed by applicable state and local laws.

EMS District Captain: A Captain that is licensed as a paramedic and assigned to manage an EMS District.

EMS Supervisor: Former title of an EMS District Captain.

Fire Chief: Chief Engineer and General Manager of the Department.

Firefighter: A uniformed member of the Department.

Incident Command System (ICS): An incident management structure designed to provide the emergency responder with and organization and system to manage emergency events.

Lieutenant Commander: Proposed rank designation for a Captain that is currently licensed as a paramedic and assigned as the Battalion EMS Officer.

Light Force: A truck company and a 200 series engine housed together.

Member: Any employee duly and regularly appointed in the Fire Department under Civil Service Rules and Regulations to perform the duties of a regular firefighter in the City of Los Angeles.

Platoon: One of three groups of Bureau of Emergency Services personnel, which is alternately on duty for 24 consecutive hours.

Quality Improvement Section (QIS): The Department subdivision responsible for EMS related oversight functions of both field resources and medical dispatch.

Section: A subdivision of the Department, other than in the Emergency Service Bureau, directly subordinate to a bureau or division.

Senior Paramedic: Former title of an EMS District Captain.

Shift: A period of 24 consecutive hours starting at 0800 hours on any day.

Standing Field Treatment Protocols (SFTP): Written orders and associated policies allowing paramedics to initiate advanced life support (ALS) procedures without voice contact for medical direction from a physician or mobile intensive care nurse at a base hospital.

Station Commander: The Officer or member in command of a fire station.

Task Force: An engine company, a 200 series engine and a truck company all housed together.

This research project employed the action research methodology using materials from the National Emergency Training Center (NETC) Learning Resource Center. Research was conducted using a literature review for the purpose of identifying the elements of effective EMS

supervision. A twenty-four item survey instrument (Appendix A) was developed by the investigator to examine the structure of the EMS system and the elements of supervision employed by other fire service based EMS providers that provide ambulance transportation services to their communities. The survey was distributed, in person, to 11 of the 20 fire service based ambulance providers in Los Angeles County. It was faxed or e-mailed to 6 other fire departments outside of Los Angeles County that also use a fire service based ambulance deployment model.

RESULTS

The small number of respondents to the survey that employed dedicated EMS Field Supervisors proved to be a limitation for this research project. Eighty-eight percent of the agencies responding to the survey used line fire officers, Captains or Lieutenants, to provide field supervision for EMS activities. Although not required, the majority reported that 25% or more of their line officers had training and experience as paramedics. Eleven of the sixteen respondents reported that 25% or more of their second level supervisors had training and experience as paramedics. All sixteen agencies reported having a full-time EMS/Paramedic Coordinator (Appendix D). Although not conclusive, the survey results do show that the majority of respondents have accepted EMS as core component of their emergency services systems and have deployed both line and supervisory staff to address the needs of their customers.

Answers to Research Questions

Research Question1. What rank and reporting structure will allow LAFD EMS District Officers to have direct supervisory authority over the line personnel providing EMS in Los

Angeles? The author found that the LAFD EMS District Officers currently hold the rank of Captain I/Paramedic and are assigned to the Bureau of Human Resources. This places them outside the direct chain of command of the line personnel that provide emergency medical services. They are equal in rank to an Engine Company Officer (Captain I) but subordinate in rank to a Task Force Commander (Captain II). This peer/subordinate situation can best be remedied by establishing a new rank classification of Lieutenant Commander that is functionally between a Battalion Chief and a Captain II. The chain of command problem can best be resolved by assigning the EMS District Officers directly to the Battalion office.

Research Question 2. What is a reasonable span of control for LAFD EMS District Officers? The average span of control for Battalion Commanders, EMS District Captains, and Division Commanders for the current deployment model is shown in Table 1.

Table 1
Span of Control for Current Deployment Model

Current Deployment	Fire Stations	Total Companies	Paramedic Units	Personnel per Shift
Battalions	6.3	14.7	5.1	55
EMS Districts	16.8	39.2	13.5	146
Divisions	33.7	78.3	27.0	293

The number of EMS Districts should be increased from the current 6 to 16 and the District boundaries should be re-aligned to match those of the existing Battalions. The average span of control for Battalion Commanders, EMS District Captains, and Division Commanders for the recommended deployment option is shown in Table 2.

Table 2
Span of Control for Proposed Deployment Model

Recommended Deployment	Fire Stations	Total Companies	Paramedic Units	Personnel per Shift
Battalions	6.3	14.7	5.1	55
EMS Districts	6.3	14.7	5.1	55
Divisions	33.7	78.3	27.0	293

The recommended deployment model will reduce the span of control in the EMS Districts to match that of the Battalions and provide each Battalion Commander with an experienced EMS Executive Officer as a member of the Battalion management team.

Research Question 3. How do other like-sized and/or adjacent fire-based EMS providers, that provide ambulance transportation, supervise the line personnel providing EMS? The majority of respondents to the survey reported that they use fire officers, either Lieutenants or Captains, to provide line supervision for their field EMS personnel. Although only 4 providers required first level supervisors to have ALS training and experience, the majority of respondents reported that more than 25% of their first level supervisors had ALS experience. The majority of respondents also reported that 25% or more of their second level supervisors had ALS experience. Four agencies reported using dedicated EMS Field Supervisors, all of which were trained and experienced paramedics.

Research Question 4. What factors prevent the LAFD from implementing an EMS supervision model similar to the ones employed by other like-sized and/or adjacent fire-based EMS providers that provided ambulance transportation? The major obstacle preventing the LAFD from implementing a field supervision model similar to that used by other provider agencies is an inadequate number of fire officers with paramedic training and experience. Only 38 of the 459 (8%) Fire Captains employed by the LAFD are currently licensed as paramedics. This is less than half the number of Captains needed to staff the 26 ALS engine companies and falls far short of the number needed to effectively supervise the 55-paramedic ambulances.

The reasons for the small number of Fire Captains with paramedic experience date back to 1972, when “The City Council directed the Fire Department to replace the firefighters assigned to rescue ambulance duty with single-function career EMS personnel” (D. O. Manning,

personal communication, December 1, 1983). Although a small number of firefighters had been cross-trained as paramedics, it was not until January 1993 that the first group of 23 paramedics was cross-trained and certified as firefighters (W. N. Wells, personal communication, May 19, 1999). The net result of these administrative decisions was that experienced paramedics had to wait until they could become fire suppression certified and then collect requisite four years of firefighting experience before they were allowed to compete for the position of Fire Captain.

In recent years, several experienced Fire Officers have volunteered for paramedic training, but they were denied this opportunity because of work rules, which prohibit Fire Captains from working on ambulances. While this makes sense from the view point of the time needed to develop clinical competency, it forces the Department to rely on the existing civil service promotional process to feed experienced paramedics into the rank of Fire Captain.

DISCUSSION

Relationships between study results and findings of others.

The study identified that there is no single method of providing line supervision for EMS personnel. The information reviewed and collected did identify that all of the agencies that responded to the survey used Fire Officers to provide field supervision for EMS. However, it was also found that most of the responding agencies have never used single-function EMS personnel to provide EMS or ambulance service. The firefighter/paramedics in these agencies have grown up in a dual-function system that recognized the value of EMS to their Departments and their communities. In these systems, the firefighter/paramedics have been promoted up through the ranks to Captain, Battalion Chief, Assistant Chief, and in one agency Fire Chief. The

agencies that have absorbed single-function EMS and ambulance personnel into the ranks of firefighters are struggling with the same types of management and supervisions problems identified by the researcher in the LAFD.

Organizational implications of results.

Given the nature of emergency medical services provided by the LAFD, it is essential that EMS supervision be provided around the clock by licensed Paramedic Captains operating within the same chain of command as the EMS field providers.

At the operational level, effective EMS supervision is contingent upon continuity of command and a reasonable span of control. Therefore, the EMS Officers should be within the field providers' direct chain of command. As line supervisors, the Battalion EMS Officers would have the authority to provide on-scene evaluation, remedial training, and corrective action within the defined command structure. Furthermore, transferring the EMS District Captains to the Bureau of Emergency Services under the direct command of a single administrative Battalion Commander corrects several existing structural problems and provides the following administrative and operational benefits:

- It places the EMS Officer within the same chain of command as the field personnel providing EMS.
- It provides each Battalion Commander with a staff officer who is familiar with EMS policies and procedures, thereby improving the interface with the medical community and the public.
- It provides each Battalion Commander with a knowledgeable and experienced EMS Training Officer.

- It legitimizes the EMS Officer's position within the operational chain of command for the purpose of evaluation, training, and remediation of performance deficiencies.
- It allows the EMS Officer to implement the policies, practices, and procedures of the Department under the authority of the administrative Battalion Commander.
- It simplifies the medical risk management function and improves the investigation of EMS service complaints by having all members of the investigating team within the same Bureau.

At the administrative level, EMS supervision must be made an integral component of the Bureau of Emergency Services. Establishing an Assistant Bureau Commander position within the line Bureau responsible for EMS would provide the following administrative and operational benefits:

- It enhances the Bureau of Emergency Services management team by providing a ranking staff officer who is familiar with EMS policies and procedures, and thereby improves the interface with the medical community on EMS policy and deployment issues.
- It elevates the importance of EMS within the organizational structure by placing EMS on par with fire suppression and rescue at the bureau level.
- It places EMS management within the same chain of command as the field personnel responsible for providing EMS.
- It simplifies the medical risk management process and improves the investigation of EMS service complaints by having all members of the investigating team within the same Bureau.

RECOMMENDATIONS

The only viable solution for effective EMS field supervision in the LAFD, at this point in time, is dedicated EMS Officers with line authority that are in the direct chain of command. It would require a total of 48 EMS Officers to staff the proposed 16 Battalion EMS Officer positions, on a 24-hour platoon duty schedule, and 1 Paramedic Assistant Chief to staff the EMS Division Commander position in the Bureau of Emergency Services.

At the present time there are 54 Captains currently licensed as paramedics. Seventeen of these Captains are currently assigned to the existing 6 EMS Districts. The recommended deployment option requires 31 of the remaining 37 Captain/Paramedics to staff the proposed Battalion EMS Officer positions. This leaves 6 other Captain/Paramedics available for assignment to the 7 other authorized Captain/Paramedic positions in the 1999/2000. Two licensed paramedics are on the existing Fire Captain promotional list. Although there are no Assistant Chiefs that are licensed paramedics, there is one Battalion Chief that is a licensed paramedic on the Assistant Chief promotional list. The above numbers demonstrate that it is possible to implement the recommended deployment option with available staff.

Recommendation 1. The LAFD should increase the number of EMS Districts to match those of the current Bureau of Emergency Services Battalions.

Recommendation 2. The LAFD should realign the EMS District boundaries to match those of the current Bureau of Emergency Services Battalions.

Recommendation 3. The LAFD should elevate the EMS District Officers to the rank of Lieutenant Commander and assign them to the Bureau of Emergency Services as the Battalion EMS Officer reporting directly to the administrative Battalion Commander.

Recommendation 4. The LAFD should establish an EMS Executive Officer assigned to the Bureau of Emergency Services at the level of Assistant Chief to function as the Department's Chief Paramedic and EMS Coordinator.

Recommendation 5. The LAFD should seek funding from the Mayor and City Council to implement the proposed recommendations.

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Appendices Not Included. Please visit the Learning Resource Center on the Web at http://www.lrc.fema.gov/ to learn how to obtain this report in its entirety through Interlibrary Loan.